

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
--	----------------------------

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0207451F: <i>Single Integrated Air Picture (SIAP)</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	12.939	1.832	-	-	-	-	-	-	-	Continuing	Continuing
655232: <i>Single Integrated Air Picture (SIAP)</i>	12.939	1.832	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

In Fiscal Year 2012 (FY12), no Air Force requirement exists.

The Single Integrated Air Picture (SIAP) is a Joint Requirements Oversight Council (JROC) validated collaborative enterprise Special Interest Program. It comprises of multiple engineering and acquisition programs in each of the services and all linked by a joint program executive office. The product of fused data from multiple sensors - a System-of-System (SoS) that provides unambiguous, actionable tracks of all airborne objects in a surveillance volume. All airborne objects of interest must be detected, tracked, and reported. Every object must have one and only one track and set of identified characteristics. Weapon systems from each Service must see and act on the same track data consistently. The Army and Navy, with the help of the other services and MDA, are to harvest any usable components/capabilities from the Integrated Architecture Behavior Model (IABM) to aid in the development of a Joint Track Manager (JTM) for use in their weapon systems. The core set of SIAP SoS requirements are outlined in the SIAP Capabilities Development Document (CDD) generated by the US Joint Forces Command and validated by the JROC in Sep 2007. The SIAP CDD requirements will be achieved through the development and implementation of the SIAP SoS. The Air Force is applying expertise in various program offices to assist with: defining the JTM functionality, the required SIAP architecture, the definition of JTM, and the integration methodology for weapon systems and the airborne network.

Project 5232 funds Air Force specific JTM related engineering efforts including Air Force staff that works directly with the Joint SIAP Program Executive Office (JPEO) to help define and develop the functional content of the JTM. The Army and Navy, with the help from the other services and Missile Defense Agency (MDA), will conduct a JTM Demonstration in the fourth quarter of fiscal year 2011 to illustrate the results of their work.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
--	----------------------------

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0207451F: <i>Single Integrated Air Picture (SIAP)</i>
--	--

B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	13.399	1.832	-	-	-
Current President's Budget	12.939	1.832	-	-	-
Total Adjustments	-0.460	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-0.056	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.404	-			
• Other Adjustments	-	-	-	-	-

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0207451F: Single Integrated Air Picture (SIAP)				PROJECT 655232: Single Integrated Air Picture (SIAP)				
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost	
655232: Single Integrated Air Picture (SIAP)	12.939	1.832	-	-	-	-	-	-	-	Continuing	Continuing	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0			
A. Mission Description and Budget Item Justification												
<p>The Single Integrated Air Picture (SIAP) was a Joint Requirements Oversight Council (JROC) validated collaborative enterprise Special Interest Program, comprising multiple engineering and acquisition programs in each of the services, all linked by a joint engineering and development organization. The product of fused data from multiple sensors - a "System of System" (SoS) that provides unambiguous, actionable tracks of all airborne objects in a surveillance volume. All airborne objects of interest must be detected, tracked, and reported. Every object must have one and only one track and set of identified characteristics. Weapon systems from each Service must see and act on the same track data consistently. The Army and Navy, with the help of the other services and MDA, are to harvest any usable components/capabilities from the IABM to aid in the development of a Joint Track Manager (JTM) for use in their weapon systems.</p> <p>The core set of SIAP SoS requirements are outlined in the SIAP Capabilities Development Document (CDD) generated by the US Joint Forces Command and validated by the JROC in Sep 2007. The SIAP CDD requirements will be achieved through the development and implementation of the SIAP SoS.</p> <p>The Air Force is applying expertise in various AF program offices to assist with defining the JTM functionality, the required SIAP architecture, the definition of JTM, and the integration methodology for AF weapon systems and the airborne network. Project 5232 funds AF specific JTM related engineering efforts including AF staff that works directly with the Joint SIAP Program Executive Office (JPEO) to help define and develop the functional content of the JTM. The Army and Navy, with the help from the other services and MDA, will conduct a JTM Demonstration to illustrate the results of their work.</p>												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Development & Risk Reduction Description: Development and Risk Reduction FY 2010 Accomplishments: Architecture analysis for Air and Missile Defense, develop next generation Integrated Data Registration capability (IDR), development and demo of Air Force Composite Tracking Network (AFTCN). FY 2011 Plans: FY 2012 Base Plans: FY 2012 OCO Plans:								8.090	-	-	-	-

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0207451F: Single Integrated Air Picture (SIAP)	PROJECT 655232: Single Integrated Air Picture (SIAP)				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: System Engineering Description: Engineering Support FY 2010 Accomplishments: ETASS Contract Support, AFC2IC Surviac Task, BC3 SME Support for JTM Analysis Team Meeting, AWACS/ MITRE SME Support, BOEING SME Support FY 2011 Plans: FY 2012 Base Plans: FY 2012 OCO Plans:		2.626	-	-	-	-
Title: Test & Evaluation Description: Test & Evaluation FY 2010 Accomplishments: CEIF, AWACS FY 2011 Plans: FY 2012 Base Plans: FY 2012 OCO Plans:		0.385	-	-	-	-
Title: Program Office Support Description: Program Office Support FY 2010 Accomplishments: PMA, Travel, PASS Contract Support FY 2011 Plans: PMA, Travel, MITRE, PASS and ETASS Contract Support FY 2012 Base Plans: FY 2012 OCO Plans:		1.838	1.832	-	-	-
Accomplishments/Planned Programs Subtotals		12.939	1.832	-	-	-

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT				
3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				PE 0207451F: Single Integrated Air Picture (SIAP)				655232: Single Integrated Air Picture (SIAP)				
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost	
• PE 0605452F: SIAP Joint Program Executive Office, RDT&E AF	14.877	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing	
• PE 0606323F: Multi-Service Systems Engineering, RDT&E AF	0.000	18.901	13.953	0.000	13.953	13.938	13.935	0.000	0.000	Continuing	Continuing	
D. Acquisition Strategy												
Program element terminated at the end of FY11.												
E. Performance Metrics												
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.												

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				PE 0207451F: Single Integrated Air Picture (SIAP)				655232: Single Integrated Air Picture (SIAP)					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A3MD Development & Risk Reduction	C/CPFF	Raytheon:Tewksbury, MA	3.040	-		-		-		-	0.000	3.040	6.816
Battle Command & Control Center (BC3)	C/CPFF	Raytheon/Solipsys:Lexington Park, MA	0.250	-		-		-		-	0.000	0.250	0.250
Integrated Data Registration (IDR)	C/CPFF	BAE Systems:Wayne, NJ	2.800	-		-		-		-	0.000	2.800	2.800
Weapon System Support to MSSET	C/CPFF	Thales-Raytheon Systems:Fullerton, CA	2.000	-		-		-		-	0.000	2.000	2.107
Subtotal			8.090	-		-		-		-	0.000	8.090	11.973
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ESC Engineering Support	C/CPFF	Jacobs Technology:Lexington, MA	0.281	-		-		-		-	0.000	0.281	0.281
AFC2IC Surviac Task	C/CPFF	DTIC:Ft. Belvoir, VA	1.500	-		-		-		-	0.000	1.500	1.500
Battle Command & Control Center (BC3) Support	C/CPFF	SMDC:Lexington Park, MA	0.501	-		-		-		-	0.000	0.501	0.501
AWACS Support	C/CPFF	MITRE:Bedford, MA	0.080	-		-		-		-	0.000	0.080	0.080
BOEING Support	C/CPFF	BOEING:Seattle, WA	0.264	-		-		-		-	0.000	0.264	0.264
Subtotal			2.626	-		-		-		-	0.000	2.626	2.626
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CEIF Support	C/TBD	CEIF:Hanscom AFB, MA	0.184	-		-		-		-	0.000	0.184	2.933

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0207451F: <i>Single Integrated Air Picture (SIAP)</i>				PROJECT 655232: <i>Single Integrated Air Picture (SIAP)</i>					

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AWACS Demo Support	C/CPFF	BOEING:Seattle, WA	0.201	-		-		-		-	0.000	0.201	0.201
Subtotal			0.385	-		-		-		-	0.000	0.385	3.134

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office Support	C/TBD	PE Systems:Hanscom AFB, MA	1.838	1.832	Feb 2011	-		-		-	0.000	3.670	6.174
Subtotal			1.838	1.832		-		-		-	0.000	3.670	6.174

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	12.939	1.832	-	-	-	0.000	14.771	23.907

Remarks

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0207451F: <i>Single Integrated Air Picture (SIAP)</i>	PROJECT 655232: <i>Single Integrated Air Picture (SIAP)</i>

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0207451F: <i>Single Integrated Air Picture (SIAP)</i>	PROJECT 655232: <i>Single Integrated Air Picture (SIAP)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Development & Risk Reduction	1	2010	4	2011
System Engineering	1	2010	1	2012
Test & Evaluation	1	2010	4	2011
Program Management Office Support	1	2010	1	2012

UNCLASSIFIED